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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/601,852	12/19/2000	Petrus J.A. Meeuwsen	251502008400	5307

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EXAMINER

CHOWDHURY, IQBAL HOSSAIN

ART UNIT PAPER NUMBER

1652

DATE MAILED: 09/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/601,852

Applicant(s)

MEEUWSEN ET AL.

Examiner

Iqbal Chowdhury, Ph.D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 July 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-44 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

This application is a 371 of PCT/EP99/00860.

The preliminary amendment filed on 7/22/2005 is acknowledged. The newly amended claim 15, original claims 1, 2, 3, 5, 8, 9, 11, 21, 23, 24, 27, previously presented claims 4, 7, 10, 12, 13, 14, 16, 17, 18, 19, 20, 22, 25, 26, 34, 42, 43, 44 and non-elected claims 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, 39, 40, 41 have been entered.

The previous Office Action restricted the claims but the restriction inadvertently left four claims out of the restriction groupings. Furthermore, after further consideration, an additional restriction is deemed necessary. Therefore, a new lack of unity as defined by PCT Rule 13.1 is as follows.

This application contains the following inventions or groups of inventions, which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

Group I, claim(s) 1-6, 20-21, 27, and 34, drawn to a polypeptide having activity to hydrolyze xylogalacturonic acid polymer (XGA) or polygalacturonic acid (PGA) polymer.

Group II, claim(s) 7-19, 20-21 and 34, drawn to a polynucleotide encoding the polypeptide having activity to hydrolyze xylogalacturonic acid polymer (XGA) or polygalacturonic acid (PGA) polymer.

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Group III, claim(s) 22-37, 30-33, 39 and 42-44, drawn to method of use polypeptide for treating plant material, which hydrolyze xylogalacturonic acid polymer (XGA) or polygalacturonic acid (PGA) polymer.

Group IV, claim(s) 28-29, 40-41, drawn to a processed plant material.

Group V, claim(s) 35 drawn to a composition comprising gum tragacanth (sGT) treated with a strong acid.

Group VI, claim(s) 36-38, drawn to a method of screening polypeptide-having activity to hydrolyze xylogalacturonic acid polymer (XGA) or polygalacturonic acid (PGA) polymer.

The inventions listed as Groups I-VI do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The Special technical feature of Group I is the polypeptide having activity to hydrolyze xylogalacturonic acid polymer (XGA) or polygalacturonic acid (PGA) polymer and the Special technical feature of Group II is the polynucleotide encoding polypeptide having activity to hydrolyze xylogalacturonic acid polymer (XGA) or polygalacturonic acid (PGA) polymer. The only shared technical feature of these groups is that they all relate to a polypeptide having activity to hydrolyze xylogalacturonic acid polymer (XGA) or polygalacturonic acid (PGA) polymer. However this shared technical feature is not a special technical feature as defined by PCT Rule 13.2 as it does not define a contribution over the art. According to the search report of PCT (PCT form 210), a polypeptide having the activity to hydrolyze xylogalacturonic acid polymer (XGA) or polygalacturonic acid (PGA) polymer is known in the art (WO 95/34223 by Heldt-Hansen et al., and IDS #2; Chen et al.

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“Purification and some properties of beta-1, 3-xylalanases from *Aspergillus terreus* A-07”, Agric. Biol. Chem. 50: 1183-1194, 1986 and IDS # 4 and Renard et al. “The xylose –rich pectins from pea hulls”, International Journal of Biological Macromolecules, 21: 1997, IDS #5). Heldt-Hansen et al. teach several polypeptides having activity to hydrolyze xylogalacturonic acid polymer (XGA) or polygalacturonic acid (PGA) polymer, functionally similar to the instant claimed invention. Chen et al. teach isolation, purification and characterization of beta-1, 3-xylanase polypeptide having activity to hydrolyze xylogalacturonic acid polymer (XGA) or polygalacturonic acid (PGA) polymer, functionally similar to the instant claimed invention. Renard et al. teach about pectin, which is a rich source of galacturonic acid, xylose and arabinose. Renard et al. further disclose that xylose rich polysaccharide i.e. xylogalacturonan could be degraded by endo-polygalacturonase. Therefore, Groups I-VI share no special technical feature as defined by PCT Rule 13.2, as it does not define a contribution over the prior art.

3. A composition comprising gum tragacanth treated with strong acid of Group V and polypeptide having activity to hydrolyze xylogalacturonic acid polymer (XGA) or polygalacturonic acid (PGA) polymer of Group II, each unrelated and chemically distinct entities. Gum of Group V is a polysaccharide neither made nor used by the polypeptide of group I.

4. A composition comprising gum tragacanth treated with strong acid of Group V and polynucleotide encoding polypeptide having activity to hydrolyze xylogalacturonic acid polymer (XGA) or polygalacturonic acid (PGA) of Group II, each unrelated and chemically distinct entities. Gum of Group V is a polysaccharide neither made nor used by the polynucleotide of Group II.

5. The methods of Groups III and VI do not have unity of invention with each other as each methods comprises unrelated steps, use different products and produce different effects.

Furthermore, 37 CFR 1.475 does not provide for multiple products and/or methods within a single application. Therefore, inventions of Group I-VI lack unity of invention.

Applicant's election with traverse of Group I, Claims 1-27, 34, 39 and 41-42 in the communication filed on 07/22/2005 is acknowledged. The traversal is on the ground(s) that there would be no burden of search for the coexamination of Group I and Group II simultaneously. This is not found persuasive because while the search necessary for examination of the two groups overlaps it is not coextensive, examination of Group II would require search of subclasses unnecessary for the search of Group I. Applicant timely traversed the restriction (election) requirement in the reply filed on 07/22/2005. However, in view of the use of the new restriction presented herein, the restriction requirement is not made final herein in order to give applicants a chance to traverse the reasons given for lack of unity herein.

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim will be rejoined in accordance with the provisions of MPEP § 821.04. **Process claims that depend from or otherwise include all the limitations of the patentable product** will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection

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are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of *In re Ochiai*, *In re Brouwer* and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.**

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37CFR 1.48b if one or more of the currently named inventors are no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under CFR 1.48 (b) and by the fee required under 37 CFR 1.17 (i).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Iqbal Chowdhury whose telephone number is 571-272-8137. The examiner can normally be reached on 8:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapu Achutamurthy can be reached on 703-272-0928. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Respectfully,

Iqbal Chowdhury, Ph.D.

Patent Examiner, Art Unit 1652

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REBECCA E. PROUTY  
PRIMARY EXAMINER  
GROUP 1800-  
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